REFRESHER COURSE FOR GENERAL PRACTITIONERS

THE MANAGEMENT OF ACUTE DYSPEPSIA WITH SPECIAL REFERENCE TO GASTRIC AND DUODENAL ULCER

BY

F. AVERY JONES, M.D., F.R.C.P.

*Physician-in-charge, Gastro-enterological Unit, Central Middlesex Hospital ;
Consultant in Gastroenterology, Postgraduate Medical School of London*

Dyspepsia is a common symptom for which there are many causes. Discomfort related to meals, epigastric fullness, flatulence, soreness, and heartburn may merely signify a disturbance of function of the stomach, often the result of some form of stress. This stress may be nervous or emotional, as from acute anxiety or sustained annoyance ; or it may be physical, the result of over-fatigue, late nights, or insomnia ; or it may be acting directly on the stomach from hurried meals, badly cooked food, or excessive drinking. Heavy smoking, habitual purgation, or continued use of aspirin may be having an irritant effect on gastro-intestinal function. A psychoneurosis is another possible reason for a functional dyspepsia.

These causes account for a high proportion of the dyspepsias. The next common cause is peptic ulcer, and again many of the above stress factors may have been present. Whether or not a given set of stimuli cause functional dyspepsia or produce an actual ulcer possibly depends on the time the adverse factors have been operating and on their intensity, both of which may also depend on the personality of the individual. The carefree fellow will meet his disappointments and frustrations with equanimity and quickly forget about them ; the sensitive, worrying individual will magnify difficulties and bottle up his resentments, stimulating nervous impulses which pass down to his stomach and intestine. If he is also over-conscientious he will not stop working and rest like many of his fellow men. Sudden calamity in the life of a normal stable individual may be enough to fire the mechanism which produces the peptic ulcer, and acute symptoms may begin without any preceding indigestion.

Although this relation between stress and ulceration may often be found, there are many patients in whom the most careful inquiry will fail to reveal any untoward event preceding the onset of symptoms. Physical and mental stress are two aetiological factors, but there are probably others which are subtly associated with modern life and which have so far escaped recognition.

Differential Diagnosis

Other diagnoses have to be kept in mind, particularly for the milder degrees of indigestion. Carcinoma of the stomach is, numerically, an infrequent cause of indigestion, but must nevertheless be carefully excluded. Gall-bladder disease may produce a flatulent dyspepsia. Oesophageal hiatus hernia, or oesophageal ulcer may lead to acute discomfort, particularly when the patient lies down. Helminthic infestation is an occasional cause, and there are also diseases affecting other organs—e.g., cirrhosis hepatitis, pulmonary tuberculosis, early heart failure, and incipient uraemia—which may produce dyspepsia.

Investigation

A careful history and examination are the first essentials, and may bring to light significant factors of probable aetiological importance. In the majority of cases a barium meal should be arranged, to increase the accuracy of the diagnosis. One is constantly being surprised to find gastric

or duodenal ulcers in patients whose symptoms have been slight and atypical. However, it is not uncommon to receive a negative x-ray report on the patient with a convincing ulcer history. Examination of stools for occult blood is a valuable investigation, but a fractional test meal is of little diagnostic assistance. Gastroscopy is useful when there is a discrepancy between the clinical and radiological findings, and may clinch the diagnosis between a simple and a malignant gastric ulcer. In some difficult cases laparotomy is still the final arbiter.

Simple Stress Dyspepsia

This is mainly associated with anxiety states, and the symptoms lack the clear-cut periodicity of ulcer dyspepsia. Discomfort is common immediately after meals, and aerophagy is often present. The internal emotional tension may be well concealed at first, even though the individual may feel at the "end of his tether." A sympathetic hearing of the patient and a confident explanation of the mechanism of the symptoms, combined with adequate sedation and hypnotics, a holiday, and a review in four to six weeks, are the essentials of treatment. In particularly sensitive individuals initial rest in bed away from home may be desirable, and in other cases there may be some obvious physical stress which can be diminished.

Ulcer-like Dyspepsia with a Negative Barium Meal

There are patients who present with typical ulcer symptoms, yet the radiograph is reported as normal. These patients may have a history of recurring bouts of dyspepsia with gnawing epigastric pain related to meals, eased by food or alkaline powder, and possibly waking the patient at night. They should be regarded as having a peptic ulcer and treated just as energetically by rest in bed, antacids, sedatives, and a careful investigation of the personal aspects of their case. It is probable that many of these patients have subacute ulcers, as they tend to return later with undoubted evidence of peptic ulcer, or gastroscopy may reveal subacute (and occasionally chronic) lesions which have escaped radiological detection. At least three weeks' rest in bed should be advocated and the same treatment prescribed as for duodenal ulcer. In the past these cases have often received inadequate treatment, but if neglected at this stage irreversible changes may develop and a chronic ulcer supervene.

Duodenal Ulcer

The treatment of choice, especially for patients with a recent history, is initial rest in bed, preferably away from home ; but that is often difficult to manage. Hospital accommodation in the country is totally inadequate to allow in-patient treatment of all but a minority of, duodenal ulcer subjects.

Six weeks' rest in bed is desirable. Many patients will greatly prefer to continue at work, but this is to be resisted unless the rest in bed is clearly going to add to their anxieties. Rest in bed almost certainly favours the healing process, and it impresses the need for care much more

than if ambulatory treatment were undertaken. It provides opportunity for reflection and perhaps the adoption of a better perspective. The complete break will allow excessive commitments to be shed without loss of prestige. With rest in bed there must be adequate sedation during the day and adequate sleep at night, otherwise much of the benefit of the rest will be lost.

The radiological control of healing of duodenal ulcer is difficult and, indeed, impossible unless the ulcer crater is well seen initially.

Gastric Ulcer

The presence of a definite lesser-curve ulcer should always be regarded seriously. The characteristic niche, projecting cleanly from the middle of the lesser curve, is practically never a malignant ulcer; but an ulcer in the antrum, at the cardia, or well away from the lesser curve must be regarded with suspicion and investigated further.

Large gastric ulcers can heal even if the individual barely diets and stays at work, but it is extremely likely that without treatment the chance of the ulcer becoming chronic is greatly increased. Loss of pain is an entirely unreliable guide, for ulcers may remain present and symptomless for many months. The treatment of choice is rest in bed, preferably away from home, until healing takes place. This may be within three weeks, but it may need several months. Good convalescence should follow radiological healing of the ulcer, as gastroscopic studies have shown that the crater may still be present for several weeks after it has disappeared radiologically. Gastric ulcers are associated with a higher mortality than duodenal ulcers when they bleed or perforate, and there is the slight risk of malignancy. No compromise is possible, and if healing will not take place a partial gastrectomy must be advocated.

Dietetic Treatment

Treatment is based on the principle of giving two-hourly milk feeds and as pain subsides adding bland foods to maintain adequate protein, calorie, and vitamin requirements. The rate of increase must be decided in each case by the relief of pain. The diet should be attractive and colourful, as the irritation of a dull diet more than offsets the benefit from the loss of psychic stimulation of gastric secretion. The diets below are practical but not perfect, and more protein and fat in the form of eggs and cream would be of value.

The following dietary was given by Fletcher in 1948: reprints of his valuable pamphlet for patients can be obtained from *The Practitioner*. The patient should be told that the diet sheets should be regarded as a general guide, and that he must not get fussed or worried if occasionally he has difficulty in following them.

First Stage: Strict

Two-hourly milk feeds may be given, alternating with 5-oz. (140-ml.) feeds of egg and milk, or Benger's food, "ovaltine," "horlicks," malted milk, or junket. An example of stage 1 diet is given below.

- 8 a.m.—5 oz. of custard mixture
 - 10 a.m.—5 oz. of milk
 - 12 noon—5 oz. of custard mixture
 - 2 p.m.—5 oz. of milk
 - 4 p.m.—5 oz. of custard mixture
 - 6 p.m.—5 oz. of milk
 - 8 p.m.—5 oz. of custard mixture
 - 10 p.m.—5 oz. of milk
- (5 oz. = 140 ml.)

At night (if awake) 5 oz. of milk may be given.

All feeds should be taken warm (not hot), and plain water in small quantities may be allowed in addition. Between each feed (that is, at 9 and 11 a.m., and at 1, 3, 5, 7, and 9 p.m.) and at night, if awake, alkaline powder or medicine should be taken.

If there is vomiting the milk should be diluted half-and-half with water and only 3 oz. (85 ml.) taken at each feed.

If there is no vomiting and pain rapidly subsides the patient may be allowed two plain biscuits, or two small pieces of crisp toast buttered when cold. These are taken at 10 a.m., 2 p.m., and 10 p.m. with the 5 oz. of milk. If improvement continues the patient may be given a little strained porridge or patent cereal baby food at 8 a.m. and a small helping of pudding at 12 noon and 8 p.m. for two or three days before starting the stage 2 diet.

Extra nourishment can be obtained by adding a teaspoonful of sugar to each feed, and this should be done if the diet is taken for more than two days.

The milk feeds may be flavoured with a little cocoa or with "ovaltine," "bourn-vita," or "horlicks," or the milk may be taken in the form of junket.

Custard Mixture.—This should be prepared for the day by stirring two eggs (fresh or reconstituted dried) into 16 oz. (450 ml.) of milk. Before the mixture is served it should be thickened by warming and, if desired, flavoured with vanilla or chocolate. If one cannot get enough eggs to make the custard mixture, a proprietary brand of "strained custard pudding" may be used or better still a "fortified milk mixture" made by adding 2 oz. (55 g.) of dried milk powder or 1½ oz. (40 g.) of dried protein milk—i.e., "prosol" ("trufood")—to 1 pint (570 ml.) of milk.

Second Stage: Moderate

An example of a stage 2 diet, which is considerably fuller, is given here.

6 a.m.—5 oz. of warm milk.

8 a.m.—Small helping of patent groats, patent barley, or strained porridge made with milk to which "bemax" may be added; two slices of crisp toast, buttered when cold; one lightly boiled or poached egg, or scrambled dried egg; 5 oz. of milk flavoured with weak tea; jelly, honey, or syrup.

10 a.m.—5 oz. of warm milk.

12 noon.—Small helping of steamed fish or egg, as at 8 a.m.; two slices of crisp toast or plain biscuits with butter; small helping of pudding; 5 oz. of milk (including that used in pudding); add small helping of creamed potato after one week on stage 2 diet.

2 p.m.—5 oz. of warm milk or milk pudding (for example, junket, egg custard, or corn-flour).

4 p.m.—5 oz. of milk with weak tea; two slices of crisp toast or biscuits with butter; small slice of plain cake; jelly, syrup, or honey.

6 p.m.—5 oz. of warm milk or cream of vegetable soup.

8 p.m.—Same as at 12 noon.

10 p.m.—5 oz. of warm milk.

The times may be varied so long as the intervals between feeds are not longer than two and a half hours. Sugar or glucose may be taken as desired. If the patient is thirsty, water or fruit juice may be taken, but not more than 5 oz. at a time. The milk feeds may be flavoured with a little cocoa, "ovaltine," "bourn-vita," "horlicks," or very weak tea, or they may be taken in the form of junket.

Ascorbic acid tablets (50 mg.), blackcurrant purée, or rose-hip syrup should be taken daily.

Third Stage : Convalescent

A sample diet for stage 3 is as follows.

Breakfast.—Cornflakes, patent groats or barley, or strained porridge with "bemax" and 5 oz. of milk; lightly boiled, poached, or scrambled egg (shell or dried); bread or toast and butter; weak, milky tea; honey, syrup, or jelly.

Dinner.—Boiled, steamed, baked, or grilled white fish, soft roes, tripe, brains, sweetbread, chicken, or rabbit. White sauce. Lamb, tender beef, or liver, minced if possible, may be allowed; mashed potato; soft parts of well-cooked root or green vegetables (sieved if possible) or cauliflower; pudding (see below); bread or toast and butter.

Tea.—Bread or toast and butter; plain cake, or biscuits; milky tea; honey, syrup, jelly, or pea-nut butter.

Supper.—Boiled or steamed fish, egg as at breakfast, or grated cheese; bread or toast and butter; sieved vegetables; milk (with weak coffee, tea, or cocoa) or milk vegetable soup.

(Note. The bread should not be new; the toast should be crisp and buttered when cold).

In addition to these four main meals, one of the following snacks should be taken in the intervals between them, before going to bed, and if awake at night, so that the patient never has more than two hours during the day without taking food.

Snacks.—Small cup of milk (flavoured with weak tea, very weak coffee, "ovaltine," "bourn-vita," cocoa, or "horlicks," if desired); or $\frac{1}{2}$ oz. (15 g.) of plain or milk chocolate; or two or three tablets of "horlicks" malted milk or "ovaltine," or two plain biscuits or slices of crustless bread with butter and jam or paste, or a slice of plain cake.

Ascorbic acid and medicine should be taken as in stage 2 diet.

Suitable Puddings.—Suitable puddings may be made from junket, well-cooked rice, ground rice, corn-flour, semolina, tapioca, vermicelli, arrowroot; and flavoured with coffee, chocolate, caramel, almond, or vanilla. Milk jelly and all other kinds of jelly; custard, baked or boiled; blancmange; steamed sponge or castle puddings; fruit fool; sieved stewed apples, pears, plums; sweet omelet; queen of puddings; meringues, ice-cream, trifles, sieved apple charlotte.

Medication

The most important single drug in the management of peptic ulcer is phenobarbitone, given in sufficient doses to have the desired effect of sedation. The dose must be worked out individually for each case, starting with $\frac{1}{2}$ gr. (32 mg.) three times a day. Sodium amytal is a valuable alternative, starting with $\frac{1}{4}$ gr. (48 mg.) t.d.s.

Antacids are of some value during the initial phase, and "aludrox" or "lactalumina" may be given, one dessert-spoonful with water four to six times daily, half to one hour after meals. Other antacids recommended are magnesium trisilicate (30 gr.—2 g.) or equal parts of calcium and magnesium tribasic phosphate (30 gr. of each). Neither of these is as good as the soluble alkalis for the relief of pain, and during the initial phase the addition of sodium bicarbonate can be most useful—e.g., tab. alk. co.

effervesc. may be given, or mist. magnesii trisilicatis composita (N.F.), which contains 10 gr. (0.65 g.) of magnesium trisilicate, light magnesium carbonate, and sodium bicarbonate.

Belladonna is probably of most value when taken at night, and may stop night pain. Tinct. belladonna, 15–30 min. (0.9–1.8 ml.) may be given, or the dry extract may be combined with phenobarbitone aa $\frac{1}{2}$ gr.; the dose is one to two tablets. Olive oil ($\frac{1}{2}$ –1 oz. = 14–28 ml.) before meals is a useful adjunct, especially in cases of duodenal ulcer.

Special Measures

The underweight patient should be given extra protein. "Bemax" (1 oz. = 30 g.) is a useful supplement, as it contains 30% protein in addition to the vitamin B complex. Fortified milk feeds at night are most useful—for example:

5 oz. (140 ml.) milk
 $\frac{1}{2}$ oz. (14 ml.) half-cream dried milk
 $\frac{1}{4}$ oz. (20 mg.) "prosol"

Flavour as desired with cocoa, vanilla, or coffee. A milk drip is invaluable if there is severe pain at first, and a milk drip at night is a useful additional therapy for duodenal ulcer. Use a very thin Ryle's tube passed through the nose and give 2 pints (1.1 litres) of milk during the night or 6 pints (3.4 litres) in the 24 hours. Evaporated milk in the proportion of 15 oz. (425 ml.) to 25 oz. (700 ml.) of water may be used. This is more satisfactory than dried milk.

Surgery

There is no hard-and-fast line between medical and surgical treatment, and each case requires individual assessment. Under the age of 45 the chance of death is small, but surgery may be needed to save a man's job rather than his life. If crippling relapses incapacitate him he has earned a partial gastrectomy. Over 45 years there is increasing risk of death from complications if ulcers remain unhealed. If the general condition and the surgical facilities are good there should be no hesitation in operating on the patient who is unable to heal his ulcer or has recurrent complications. Partial gastrectomy is the operation of choice, and its mortality has declined considerably recently with increasing experience of surgeons and the introduction of new anaesthetic techniques and antibiotics. Nevertheless, there is a small mortality and morbidity which must still encourage the practitioner to administer medical treatment thoroughly before surgery is recommended.

Aftercare

The risk of subsequent relapses can be reduced by attention to certain aspects of the patient's life and habits. He must have a clear appreciation of the effect of emotional reactions in predisposing towards or causing further ulceration. Minor environmental difficulties may be more harmful than personal catastrophes. There must be a calm, philosophical outlook and a refusal to allow small troubles to accumulate into a pent-up load of resentment or frustration. If the patient finds himself becoming tense he must be encouraged to take phenobarbitone ($\frac{1}{2}$ gr. t.d.s.). The practitioner can assist greatly by encouraging regular consultations, at first every six weeks, then every three months, and finally three times a year. A sympathetic understanding of the difficulties and the advice of an independent observer may greatly help the individual.

The patient should avoid undue fatigue, chilling, and work which involves constant bending; but it is seldom advisable to change the patient's occupation, for this often causes more problems than are solved. Regular hours are highly desirable, and limitation of overtime duties is necessary.

Dietary restriction is probably of value indefinitely, but the most important aspect of feeding is maintaining regular meals without long intervals between them. The patient is well advised to avoid fried foods of all kinds, pastries and suet, pickles and spices, curry, pepper, onions, reheated dishes, coffee, strong tea, and anything which he finds indigestible. Priority milk should be continued, and has proved to be of great value for many patients with a ready tendency to relapse. Alcohol is best omitted for six months and then allowed in strict moderation. Smoking should be restricted, or preferably stopped, but it is legitimate to allow a few cigarettes after meals, unless the patient relapses.

Continued medication with antacids or atropine is not desirable, but the patient should have a supply of phenobarbitone. He should be strongly advised to rest completely at the onset of a relapse and return to the strict ulcer regime, for early treatment may abort an otherwise long and tiresome recurrence.

MEN AND MEDICINE*

BY

T. M. TAYLOR, C.B.E., K.C., M.A., LL.B.

Principal of Aberdeen University

You are entering on your profession at a time when great changes have taken place not only in the practice of medicine but also in the organizational forms under which it is conducted. It is far too soon to pass any verdict on the National Health Service, whether of praise or of blame, but one danger is already apparent—that its financial arrangements may easily tend to draw men away from general practice into so-called specialisms, with results that on the long view may be detrimental to the weal of the patient and the general progress of medicine.

It will be an ill day for the community when the general practitioner degenerates into a filler of forms or an automatic machine dispensing chemical panaceas. In earlier times the specialist usually graduated from the field of general medicine or surgery in which he was accustomed to deal with his patient as a human being set in a particular environment. Now the specialist at the very beginning of his career will be tempted to immure himself in his specialty, and the danger may be not only that the range of his own medical knowledge will be restricted but that he may come to lack understanding of the patient's environment and of the problems that face the general practitioner.

I am aware of the theoretical arguments in support of this trend. They start from the proposition that medicine is a science—i.e., an attempt to make knowledge quantitative—and in their extreme forms they suggest that the best results may be attained by subjecting the patient to the attentions of a series of specialists, each producing his quantitative report with a Grand Co-ordinator at the top who collates their reports and then prescribes the appro-

priate remedy. This picture, I will concede, is caricature, but it is not an unrecognizable distortion of some things that may be read or heard. The other theory rests on the contention that medicine is an art and that there is no difference in principle between the doctor making up his mind and the judge framing his judgment, the painter building up his picture, or the cook producing a good meal. In each case the practitioner of the art requires to take a total view of the situation, balancing the different elements with a delicate sense of relevancy. It is this intuitive sense of relevancy and balance that makes a judgment—legal, medical, aesthetic, or culinary—and in each case the art is learnt by doing the job and by following the practice of the acknowledged masters. It cannot be disputed that contemporary medicine owes much to the quantitative approach of exact science, but on the other hand it must not be forgotten that many of the great discoveries have come by chance to men who, like Saul, were looking for their father's asses and found a kingdom. Others again, as Sir James Mackenzie was never tired of saying, were due to general practitioners who were capable of using their own observation and clinical nous to some purpose.

Pastoral Medicine

If the practice of medicine is an art rather than a science it is equally true that the patient himself is not a mere natural object to which the techniques of physical science can be universally applied. I think it will be increasingly recognized that man has a spiritual structure which must be respected no less than the physical structure with which it has some kind of relation. It may be that the conditions of modern industrial society are themselves a violation of this essential structure, and that the increase of nervous tension and mental instability and the growing resentment of the industrial proletariat are symptoms of a violation too gross to be palliated by mere adjustments of social mechanism. However that may be, there now devolves upon the doctor in general practice a quasipastoral function which derives from the pathetic and indeed terrifying trust which simple folk repose in him. It is to be feared that the medical course, grossly overloaded as it is admitted to be, is a most inadequate propaedeutic for the discharge of a ministerial function of this kind. It becomes a question whether there should not be a course in pastoral medicine as well as in pastoral theology. Such a course would take the student into deeper waters than can be plumbed by operational techniques and the measuring instruments of the laboratory.

For the great scientific advances of our time have singularly little bearing on the decisions which have to be taken in men's daily lives and which, over a period of time, affect them profoundly for weal or woe. Scientific discovery does much to change the environmental framework within which decisions have to be taken, but the decisions themselves depend on factors that derive from custom and tradition, from poetry and literature, from philosophy and religious belief. This fact, once you perceive and realize it, may well serve to keep you humble. But those are questions that you will have to face in the years that are to come.

The American Trudeau Society, medical section of the National Tuberculosis Association, has adopted a report of its Subcommittee on Immunology which recommends that "efforts be continued to perfect and to meet in practice suitable standards for the production of B.C.G. vaccine, and that, when practicable, commercial firms be licensed under the National Institute of Health to produce the vaccine."

*Part of a graduation address given at Aberdeen University, September, 1949.